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ECHINODERMA

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Medterranean.—Tunisia, **Cherbonnier; Tortonese, (3).**

Tropical Atlantic.—Trinidad Island, 20° S., **Bernasconi (1);** Brazil, **Krau;** West Indies, Brazil, **Tortonese (3).**

Indo-W. Pacific.—Queensland, **Endean** and **Endean, Kenny & Stephenson;** Kermadec trench, abyssal, **Gislén;** South China Sea, **Hansen & Madsen;** East Indies, **Koehler & Engel;** Palao Is., **Yamanouchi.**

North Pacific.—Okhotsk, Bering and Japan Seas, **Djakonov (1);** Okhotsk Sea, asteroids, **Djakonov (2);** Bering, Okhotsk and Japan Sea asteroids **Djakonov (3);** Okhotsk and Japan Sea holothurians, **Saveljeva.**

East Pacific.—British Columbia, L. C. **Curtis, Quayle;** Peru to California, **Tortonese (3).**

South Temperate.—S. Brazil, **Bernasconi (2);** S. African asterinids, A. M. **Clark;** Natal, **Day & Morgans.**

Antarctic.—Asteroids, **Bernasconi (3).**

Geological

General.—Argentina, **Rusconi (1, 2).**

Pre-Cambrian.—**Seilacher.**

Cambrian.—Ottawa, Canada, **Wilson;** E. Siberia, N. N. **Yakovlev;** U.S.S.R. V. N. **Yakovlev.**

Ordovician.—Gloucestershire, England, M. L. K. **Curtis;** Estonia, **Kaljo, Oraspõld, Rõõmusoks, Sarv & Stumbur;** Ottawa, Canada, **Wilson.**

Silurian.—Sweden, echinoids, **Regnéll;** Ohio, U.S., **La Rocque & Marple;** Sweden, crinoids, **Ubaghs.**

Devonian.—Uzbekstan, U.S.S.R., **Chekhovich, Solovyeva, Zheleznov, Rivkin, Starodubtzeva, Stukova & Urmanov;** Spain, **Kanis;** Ohio, U.S., **La Rocque & Marple.**

Carboniferous.—Spain, **Kanis;** Ohio, U.S., **La Rocque & Marple;** U.S.S.R., **Yakovlev & Ivanov.**

Permian.—U.S.S.R., **Yakovlev & Ivanov.**

Permo-Triassic.—Algeria, **Muraour.**

Jurassic.—Switzerland, **Hess.**

Cretaceous.—Devriès; Egypt, **El-Din Mahmoud;** New Zealand, **Fell (2);** Greenland, Angola, **Jeannet;** Mexico, **Kellum;** Limburg, **Meijer;** N. Germany, **Müller;** Algeria, **Muraour;** Southern England, **Nichols;** Turkey, **Pinar;** Czechoslovakia, **Rehnelt;** France, **Sénesse.**

Eocene.—France, **Balavoine;** S.W. France, **Dupérier;** Somaliland, **Kier;** Algeria, **Muraour;** Dahomey, **Roman (1);** France, *Echinolampas*, **Roman (2).**

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Miocene.—Sardinia, **Comaschi Caria;** Ceylon, **Deraniyagala;** Algeria, **Muraour;** Rumania, **Paucă.**

Pliocene.—Lower California, Mexico, **Chace;** California, U.S., **Grant & Hertlein;** New Hebrides, **Jeannet;** Sicily, **Lipparini, Malatesta, Nicosia & Valdinucci;** Algeria, **Muraour.**

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[Vacant]

ASTEROIDEA

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Pedicellaster eximius p. 33 fig. 36, *indistinctus* p. 34 fig. 38, *magister ochotensis* p. 34 fig. 37, *orientalis* p. 34 fig. 39, **Djakonov** (1); *P. eximius* pp. 68–72 figs. 11–15, *indistinctus* pp. 66–68 fig. 10, *magister ochotensis* pp. 59–64 figs. 1–4, *orientalis* (raised from subspecific rank) pp. 64–66 figs. 6–9, *typicus* fig. 5, **Djakonov** (3).

Peltaster nidarosiensis, **Tortonese & Clark** pp. 348–349 figs. 1a, 2a.

Perknaster fuscus antarcticus, **Bernasconi** (3) pp. 11–13 pl. v fig. 3.

Pisaster brevispinus, L. C. **Curtis** fig. 11.

Psilaster charcoti, **Bernasconi** (3) pp. 8–9 pl. iii figs. 3, 4.

Pseudarchaster ornatus p. 19, *parelii* pp. 18–19 fig. 17 **Djakonov** (1); *P. ornatus*, **Djakonov** (2) pp. 53–57 figs. 12, 13.

Pycnopodia helianthoides, L. C. **Curtis** fig. 8.

Solaster p. 24, *dawsoni* p. 25 fig. 21, *endeca* p. 24 fig. 24, *pacificus* p. 25, *paxillatus* p. 25 fig. 23, *stimpsoni* p. 25, **Djakonov** (1); *S. dawsoni* fig. 9, *paposus* fig. 7, *stimpsoni* fig. 10, L. C. **Curtis**.

Sphaeriodiscus placenta, pp. 347–350 figs. 1b, 2b, *planus* p. 350 pl. ix, **Tortonese & Clark**.

Stylasterias forreri, L. C. **Curtis** figs. 2, 6.

Tethyaster subinermis, **Cherbonnier** p. 10; *T. subinermis* pp. 330–331, *vestitus* pp. 331–333 pl. ix, **Tortonese** (3).

Thrissacanthias bispinosus, **Djakonov** (2) pp. 38–40.

OPHIUROIDEA

Amphiacantha derjugini **sp. nov.** Okhotsk Sea, **Djakonov** (1) p. 53 (name recorded in Z.R. 92 from Djakonov, 1950).

Amphiodia craterodmeta p. 54 fig. 72, *cyclaspis euryaspis* p. 54, *periercta* p. 55 fig. 73, *rossica* p. 55 fig. 71, **Djakonov** (1).

Amphiophiura megapoma p. 57 fig. 79, *oediplax* p. 57 fig. 80, *ponderosa* p. 57, **Djakonov** (1).

Amphioplus ancistrotus p. 54 fig. 69, *macraspis* p. 54 fig. 68, **Djakonov** (1).

Amphipholis squamata, **Cherbonnier** p. 14; *A. kochii* p. 55 fig. 75, *pugetana* p. 55 fig. 74, **Djakonov** (1).

Amphiura chiajei, **Cherbonnier** p. 13; *A. acrystata*, *carchara* p. 56, *koreae* p. 55 fig. 70, *lepidevaspis* p. 56 fig. 78, *leptodoma* p. 56, *psilopora* p. 56 fig. 76, *sundevalli* p. 56 fig. 77, **Djakonov** (1).

Astrospartus mediterraneus, **Cherbonnier** p. 12.

Ophiacantha p. 51, *O. adiophora* p. 52, *bidentata* p. 52 fig. 61, *dallasii* p. 51, *levispina*, *omoplata* p. 52, *rachophora* p. 52 fig. 60, **Djakonov** (1); *O. setosa*, **Cherbonnier** p. 13.

Ophiacanthella acontophora, **Djakonov** (1). p. 52 fig. 64.

Ophiactis amphipholoides **sp. nov.** N. Spain, **Alvarado** pp. 141–145 figs. 1–3.

Ophiocomina nigra, **Cherbonnier** p. 14.

Ophiocten sericeum, **Djakonov** (1) p. 58 fig. 88.

Ophioderma longicauda, **Cherbonnier** pp. 14–15.

Ophiolebes vivipara **sp. nov.** Ochotsk Sea, **Djakonov** (1) p. 51 (name recorded in Z.R. vol. 92 from Djakonov, 1950). *O. asaphes* p. 51 fig. 63, Id.

Ophiomyxa pentagona, **Cherbonnier** p. 13.

Ophiopenia disacantha p. 61 fig. 92, *tetracantha* p. 61 fig. 93, *vicina* p. 61 fig. 94, **Djakonov** (1).

Ophiopholis aculeata p. 53 fig. 65, *aculeata* v. *japonica* p. 53 fig. 66, *mirabilis* p. 53 fig. 67, **Djakonov** (1).

Ophiophthalmus cataleimmoidus p. 52 fig. 62, *normani* p. 53, **Djakonov** (1).

Ophiothrix fragilis, *quinquemaculata*, **Cherbonnier** p. 14.

Ophiura gagara **sp. nov.** Ochotsk Sea, **Djakonov** (1) p. 60 (name recorded in Z.R. vol. 92 from **Djakonov**, 1950); *O. cryptolepis* p. 60 fig. 91, *flagellata* p. 60 fig. 89, *irrorata* p. 60, *kinbergi* p. 59 fig. 90, *leptoctenia* p. 59 fig. 87a, *maculata* p. 59, *quadrispina* p. 60 fig. 87b, *sarsi* p. 59 figs. 85, 86b, *sarsi* f. *vadicola* p. 59 fig. 86a, Id.; *O. albida*, *texturata*, **Cherbonnier** p. 15; *O. loveni*, **Madsen** (2) pp. 24–26 fig. 2; *O. texturata*, **Tortonese** (1) pp. 250–254.

†*Ophiurites* (*Ophiomusium*?) *lamberti* **sp. nov.** Eocene Dahomey, W. Africa, **Roman** (1) pp. 428–431 fig.

Stegophiura brachyactis p. 58 fig. 82, *nodosa* p. 57 fig. 81, *sladeni* p. 58 fig. 84, *sterea* p. 58 fig. 83, **Djakonov** (1).

CRINOIDEA

†*Acariaiocrinus* p. 57, with *A. caryophylloides* pp. 57–58 fig. 15 pl. x figs. 7–13, **Yakovlev** *in* **Yakovlev & Ivanov**.

†*Acrocrinus* p. 34, with *A. mjatschkowensis* pp. 34–35 pl. viii fig. 7, **Yakovlev & Ivanov.**

†*Actinocrinus gilbertsoni*, **Wright** pp. 156–158.

†*Aesiocrinus* pp. 27–28, with *A. ivanovi* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev & Ivanov** pp. 29–30 pl. vii fig. 6; *A. patens*, Id. pp. 28–29 pl. vii figs. 3–5.

†*Ammonicrinus* (?) *nordicus* **sp. nov.** Permian U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** p. 69 pl. xi fig. 15.

Antedon, **Direction 42**, pp. 158, 163–164, 167, gender feminine; *A. maroccana* pp. 7–8, *mediterranea* p. 7, **Cherbonnier.**

†*Arthroacantha carpenteri*, **La Rocque & Marple** p. 94 fig. 232.

†*Asuturaecrinus* **gen. nov.**, family Lecanocrinidae, for type *A. dorofeievi* **sp. nov.** Permian U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** pp. 71–72 pl. xi fig. 17.

†*Balanocrinus* pp. 476–477, with *B. pentagonalis* fig. 5, *subteres* fig. 4, **Hess.**

Bathycrinus, **Direction 42**, pp. 156, 167, gender masculine; *B. australis*, **Gislén** pp. 1–2 pl. i.

†*Bolbocrinus* p. 55, with *B. eudoxiae* pp. 55–56 pl. ix figs. 12–14, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Cadocrinus saltanajewi* **sp. nov.** Permian U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** pp. 65–66 pl. xiii fig. 5; *C. timanicus*, Id. pp. 73–74 pl. xiii figs. 1, 2.

†*Calycocrinus* pp. 69–70, with *C. rossicus* pp. 70–71 fig. 19 pl. ix figs. 5, 6, 8, 10, 15–18, *C.* sp. p. 71 pl. ix figs. 7, 9, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Ceriocrinus serratomarginatus*, **Yakovlev** *in* **Yakovlev & Ivanov** p. 64 pl. xi fig. 11.

†*Cremacrinus inaequalis*, **Wilson** pl. iv fig. 18.

†*Cromyocrinus* p. 15, with *C. cupoliformis* p. 18 pl. viii fig. 6, *geniculatus* p. 18 pl. iii fig. 2, **spp. nov.** Carboniferous U.S.S.R. **Yakovlev & Ivanov**; *C. simplex*, Id. pp. 15–18 pl. iii figs. 3–5.

†*Dichocrinus rotaii* pp. 47–48 pls. xvi fig. 4, xvii figs. 1, 2, xviii fig. 1, *tomiensis* p. 48 pl. xvi fig. 1, **spp. nov.** Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov**; *D. schmidtii*, Id. p. 76.

†*Dicromyocrinus kumpani* p. 44 pl. xii figs. 1–5, *subornatus* p. 44 pls. viii figs. 2–5, xxi fig. 1, **spp. nov.**, *D. ornatus* **var. nov.** *domgeri* **var. nov.** pp. 43–44 pl. viii fig. 1, Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov**; *D. elongatus* p. 22 pl. iv fig. 4, *trautscholdi* pp. 21–22 pl. iv figs. 5–8 **spp. nov.** Carboniferous U.S.S.R., **Yakovlev & Ivanov**; *D. geminatus* pp. 19–20 fig. 3 pl. iv figs. 1–3, *ornatus* pp. 20–21 pl. v figs. 1–6, Id.

†*Dolatocrinus*, **La Rocque & Marple** p. 94 fig. 233.

†*Epipetschoracrinus* **gen. nov.**, family Poteriocrinidae, for type *E. borealis* **sp. nov.** Permian U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** pp. 81–82 pl. xv fig. 16.

†*Erisocrinus* p. 32, with *E. cernuus* pp. 32–33 fig. 7 pl. vii fig. 7, **Yakovlev & Ivanov**; *E. araxensis*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 82–83 pl. xix figs. 1, 2.

†*Eucalyptocrinites crassus*, **La Rocque & Marple** p. 73 fig. 148.

†*Eupachycrinus mooresi*, **La Rocque & Marple** p. 119 fig. 348.

†*Gilbertsocrinus ohioensis*, **La Rocque & Marple** p. 94 fig. 234.

†*Graphiocrinus cristatus* Carboniferous U.S.S.R. pp. 50–51 pl. xii fig. 10, *timanicus* Permian U.S.S.R. p. 74 pl. xxi fig. 2, **spp. nov.**, **Yakovlev** *in* **Yakovlev & Ivanov**; *G. treuteri* pp. 64–65 pl. xi fig. 13, Id.

†*Habrocrinus benedicti*, **La Rocque & Marple** p. 73 fig. 145.

†*Halysiocrinus* p. 54, with *H.*(?) *tuberculatus* pp. 54–55 pl. ix fig. 11, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Hemiindocrinus* p. 60, with *H. fredericksi* pp. 60–61 pl. xi figs. 1–5, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Hemimollocrinus* p. 59, with *H. uralensis* pp. 59–60 pl. x figs. 27, 33, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Hemistreptacron* pp. 58–59, with *H. abrachiatum* p. 59 fig. 16, pl. x figs. 4–6, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Hexacrinus*, with *H. carboniferus* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev & Ivanov** p. 34 pl. iv fig. 10.

Holopus, **Direction 42**, pp. 156, 167, gender masculine.

†*Hydriocrinus* p. 30, with *H. pusillus* pp. 30–31 fig. 5 pl. viii fig. 8, **Yakovlev & Ivanov.**

†*Indocrinus* p. 61, with *I.*(?) *piszowi*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 61–62 fig. 17 pl. xi figs. 6–10.

†*Isocrinus* pp. 477–479, with *I. andreae* figs. 1–3, 6, pl. xviii fig. 1, **Hess.**

†*Kallimorphocrinus* p. 53, with *K. donetzensis* p. 43 pl. xii fig. 7, *multibrachiatus* p. 54 pl. ix fig. 4, *uralensis* pp. 53–54 fig. 13 pl. ix figs. 1–3, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Lecanocrinus waukoma*, **La Rocque & Marple** p. 73 fig. 149.

Leptometra phalangium, **Cherbonnier** p. 8.

†*Marsupiocrinus praematurus*, **La Rocque & Marple** p. 73 fig. 146.

Metacrinus, **Direction 42**, pp. 156, 167, gender masculine.

†*Monobrachiocrinus* p. 56, with *M. oviformis* pp. 56–57 fig. 14 pl. x figs. 1–3, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Moscovicrinus* pp. 9–10, with *M. bijugus* pp. 11–13 fig. 1 pl. iii fig. 1. *multiplex* pp. 10–11 pl. i figs. 1, 2, **Yakovlev & Ivanov.**

†*Nereocrinus* p. 55, with *N. jemeljantzewi* p. 55 pl. xi fig. 19, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Pachylocrinus* p. 24, with *P. baschmakowae* p. 25 pl. vi figs. 5, 6, *pachypinnularis* pp. 25–26 pl. vii fig. 1, **spp. nov.** Carboniferous U.S.S.R., **Yakovlev & Ivanov**; *P. tenuiramosus*, Id. pp. 24–25 pl. vi fig. 4.

†*Pareocrinus* **gen. nov.** for type *P. ljubzovi* **sp. nov.** Cambrian, E. Siberia, **Yakovlev (1)** pp. 726–727 pl.

†*Parisocrinus* p. 51, with *P. asiaticus* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** pp. 51–52 pl. xvii figs. 3, 4.

†*Pentacrinus* pp. 479–480, with *P. dargniesi* pp. 480–484 figs. 7, 8, 10, 11, pl. xviii fig. 2, **Hess.**

†*Periechocrinites*, **La Rocque & Marple** p. 73 fig. 147.

†*Petschoracrinus* p. 79, with *P. variabilis* pp. 79–81 figs. 20, 21 pl. xv. figs. 2–15, 17, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Platycrinus permiensis* Permian U.S.S.R., pp. 66–67 pl. x figs. 14–20, *P.* (?) *tuberculatus* Carboniferous U.S.S.R. pp. 49–50 pl. xii figs. 8, 9, **spp. nov., Yakovlev** *in* **Yakovlev & Ivanov**; *P. schmidtii* pp. 76–77 pl. xviii fig. 2, *P.* sp., p. 77 pl. xiii fig. 4, Id. *P.* sp. **Yakovlev & Ivanov** p. 33 fig. 8.

†*Protencrinus*, **Yakovlev & Ivanov** pp. 31–32; *P. lobatus*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 74–75 pl. xiii fig. 6.

Rhizocrinus, **Direction 42**, pp. 156, 167, gender masculine.

†*Rhodocrinus platyacron* pp. 46–47 pl. xvi fig. 2, *rubiformis* p. 46 pl. xvi fig. 3, **spp. nov.** Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Scytalocrinus kalmiusi* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** p. 45 pl. xii fig. 6.

†*Seirocrinus* pp. 484–485, with *S. subangularis* fig. 9, **Hess.**

†*Spaniocrinus transcaucasicus*, **Yakovlev** *in* **Yakovlev & Ivanov** p. 83 pl. xix fig. 3.

†*Stachyocrinus timanicus*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 75–76 pl. xiii fig. 3.

†*Stomiocrinus* p. 67, with *S. permiensis* pp. 67–68 fig. 18 pl. x figs. 21–26, **Yakovlev** *in* **Yakovlev & Ivanov.**

†*Strongylocrinus uralicus*, **Yakovlev** *in* **Yakovlev & Ivanov** p. 63 pl. xi fig. 16.

†*Sundacrinus septentrionalis*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 62–63 pl. xi fig. 18.

†*Synerocrinus* pp. 35–36, with *S. incurvatus* pp. 36–37, 45 figs. 9–12 pl. iv fig. 9, **Yakovlev & Ivanov.**

†*Synyphocrinus* pp. 13–14, with *S. magnus* **sp. nov.** Carboniferous U.S.S.R. **Yakovlev & Ivanov** p. 14 pl. i figs. 3–5; *S. cornutus*, Id. pp. 14–15 fig. 2 pl. ii figs. 1–4.

†*Teleiocrinus* p. 48, with *T.* (?) *sibiricus* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev** *in* **Yakovlev & Ivanov** p. 48 pl. xviii fig. 3.

†*Trimerocrinus platypleura*, **Yakovlev** *in* **Yakovlev & Ivanov** p. 60 pl. x fig. 31.

†*Trautscholdicrinus* p. 22, with *T. miloradowitschi* pp. 23–24 pl. vi figs. 1, 2, **Yakovlev & Ivanov.**

†*Ulocrinus uralensis*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 63–64 pl. xi fig. 14.

†*Zeacrinus* p. 26 with *Z. schmitowi* **sp. nov.** Carboniferous U.S.S.R., **Yakovlev & Ivanov** pp. 26–27 fig. 4 pl. vii fig. 2; *Z. polaris* pp. 78–79 pls. xiv, xv fig. 1, **Yakovlev** *in* **Yakovlev & Ivanov.**

†MACHAERIDIA

[Vacant]

†EOCRINOIDEA

[Vacant.]

†PARACRINOIDEA

[Vacant.]

†CYSTOIDEA

Amygdalocystites florealis, **Wilson** pl. iv fig. 17.

Caryocrinites ornatus, **La Rocque & Marple** p. 72 fig. 143.

Megacystites greenvillensis, **La Rocque & Marple** p. 72 fig. 141.

Stephanocrinus elongatus, **La Rocque & Marple** p. 72 fig. 142.

Stribalocystites gorbyi, **La Rocque & Marple** p. 72 fig. 144.

†CARPOIDEA

[Vacant.]

†EDRIOASTEROIDEA

Lepidiconia lorifrons, **Wilson** pl. iv fig. 16.

†BLASTOIDEA

Angioblastus wanneri, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 86–88 fig. 23 pl. xix fig. 6.

Codaster pyramidatus, **La Rocque & Marple** p. 93 fig. 230; *C. barkhatowae*, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 84–85 fig. 22 pl. xix fig. 4.

Cryptoblastus, p. 89, with *C. submelo* p. 90 pl. xx fig. 5, **Yakovlev** *in* **Yakovlev & Ivanov.**

Nucleocrinus verneuilli, **La Rocque & Marple** p. 93 fig. 231.

Nymphaeoblastus p. 88, with *N. anossofi* p. 88 p. xx fig. 3, *kasakhstanensis* p. 88 pl. xx fig. 1, *miljukovi* p. 88 pl. xx fig. 2, **Yakovlev** *in* **Yakovlev & Ivanov.**

Paracodaster miloradowitchi, **Yakovlev** *in* **Yakovlev & Ivanov** pp. 85–86 pl. xix fig. 5.

Schizoblastus p. 89, with *S. librovitchi* p. 89 pl. xx fig. 4, **Yakovlev** *in* **Yakovlev & Ivanov.**